Miscellanea.

A ROYAL ROAD TO DRAWING.—Another miracle, it seems, is now to be wrought in the fine arts. A Professor Richter, from Berlin, with due conditions of secrecy, "respectfully announces to the public of New York, that he has invented a new method of sketching, with facility and accuracy, all objects, in one lesson, and to effect this, no previous knowledge of drawing whatever is necessary. Portraits, landscapes, groups of flowers, interiors of saloons, churches, ruins, animals, &c., may be drawn from nature with the greatest facility and quickness. A knowledge of the rules of perspective, and of light and shade, will at the same time be acquired; as it likewise enables the pupil to colour his sketches. This method, after numerous trials, has been found most useful by architects, engineers, and ladies, as the most difficult drawing can be reduced or enlarged, on any scale, at the convenience of the pupil, without the aid of any instrument." Terms, "for the one lesson necessary to understand perfectly the method, ten dollars a pupil," &c. "The assertion," says the *Home Journal* (N. P. Willis), "that one may learn the difficult art—be able to make a faultless drawing of anything, that is to say—in half-an-hour, seems chimerical, but it is nevertheless true. We listened incredulously—but sat down, and had it proved upon our own head and eye. We cannot explain it, because to do so would be an invasion of patent. But we can say that it is an invention of exquisite simplicity, or rather half-a-dozen most ingenious inventions put to one use—a sort of daguerreotype worked by the muscles instead of by light. Any child, or any old person, can learn it in an hour, and afterwards make admirable drawings of anything."

IMPROVEMENT IN THE MANUFACTURE OF IRON.—R. Heath, Manchester, iron merchant, and R. H. Thomas, of Wolstanton, engineer, have patented certain improvements in the manufacture of iron. The patentees claim the use of revolving cylindrical surfaces or rollers, moving in the same direction, but at different rates of speed, for the purpose of converting a puddle ball of iron into a bloom. The peculiar motion given to the rollers causes the metal to revolve round its own centre, whilst at the same time it is gradually carried downwards and discharged at the bottom of the machine. The scales of metal which fall during the operation pass through a grating into a suitable receptacle underneath, and can be removed in the ordinary manner.—*Mechanics' Magazine.*

THE ASSESSING COTTAGE LANDLORDS.—The following case and opinion appear in the *Justice of the Peace* relative to a practice which we know has been adopted in many parishes in this country.—*Case.*—"The parish of A. has adopted the Small Tenements Rating Act, 13 & 14 Vict. c. 99. B. C., an owner, is liable to pay the poor-rates of several tenements occupied by different individuals. The collector, on making out the collecting receipt book, makes but one receipt for the above-named property; but distinguishes the names and amount charged on the several tenements on the back of the receipt. B. C., on the rate being demanded of him, refuses to pay unless a separate receipt is given for each occupier. Your opinion is requested as to whether the collector is bound to give receipts for each separate occupier or not?—*Opinion.* By art. 3, No. 1, of the general order of accounts, the overseers are required to prepare the rate receipt check book in the form there prescribed. That article requires that the receipts and notes 'shall be numbered consecutively with numbers according to those in the rate.' It is clear, therefore, that a separate receipt and note is required to be prepared for each property which is rated separately. And as art. 6 requires the collector to follow the same plan, he is clearly bound to give separate receipts for each occupier."

FLUXIONS AMONGST NEWCASTLE WORKMEN.—There appeared in the *Gateshead Observer*, on 7th December last, a paper by "G. W." (a medical student in London, who has the pen of an able and ready writer), entitled "Self-Education:—Hints for the Great Exhibition," and containing a paragraph which has been making the circuit of the world on the authority of "a Newcastle paper." Having met the eye of an eminent scientific gentleman, he has favoured us with the following communication:—A paragraph has appeared in the papers stating the fact that the booksellers of Newcastle had observed that most of the standard mathematical works were purchased by pitmen: the following anecdote is one in point, and will probably be read with interest:—Some years since, a gentleman, on his passage from Newcastle to Shields in a steamboat, went into the engine-room, and found one of the books mentioned—namely, Emerson's Fluxions—lying on the table, rather black and smutty, evidently much read. He asked the young engineman who read the book: he answered that he did, when he had time. Rather surprised at the fact, and presupposing that he was a young man of superior talent, he questioned him upon the subject, stating that he himself had studied these matters at the university—had passed, he believed, a fair examination—and obtained a creditable degree. With this prelude they entered freely into conversation; and from that time the stranger used all his influence to bring the studious engineman into notice. That engineman is now a distinguished mathematician, and the author of many of the very works alluded to. He had, a short time previous to this interview, "risen from a banktrapper to a breaksman" in a Newcastle coalpit, as stated in evidence before the Lords' Committee, last session, and is now—Professor Hann, of King's College!—*Gateshead Observer.*

OBSTRUCTION AT PARLIAMENT-STREET.—We are still having letters on this subject, and we see that Lord Campbell has lost no time in denouncing it at the Court of Queen's Bench at the opening of Hilary Term. As soon as the Court sat, his lordship said, with great emphasis: "I think it absolutely necessary to call attention to the serious obstructions which impede the access to this Court, which cannot be approached without the greatest possible inconvenience and danger. These obstructions nearly amount to an obstruction of justice. Neither the judges nor the council, the attorneys nor the suitors, can get to Westminster Hall without being in peril of their lives. The Court has the remedy in its own hands, and if these obstructions are not removed, I shall think it the duty of the Court summarily to interpose and remove them." This announcement appeared to be received with great satisfaction by all in court.

AMERICAN SCULPTURE FOR THE GREAT EXHIBITION.—The *American Traveller* states—"We enjoyed an opportunity within a few days, of seeing what, for aught we know, is the first elaborate piece of statuary which has ever been wrought upon American marble. The sculpture to which we allude is a work upon which a young American artist, Mr. Stephenson, is engaged, and which is now nearly completed. The design is a dying Indian chief. The figure is the size of life, and the form and features are perfectly characteristic, the whole presenting a fine idea of the North American Indian. The marble from which this first work of a young and most promising sculptor has been produced, is of a pure and beautiful white, equalling, apparently, the best Italian. It is from a quarry in Rutland, Vermont,—the block originally having weighed three tons. Mr. Stephenson, who at present resides at Charlestown, is from the west, where he has had favourable opportunities of observing and studying the Indian form and character. He has spent two years in Rome, in the study of the art to which he has devoted himself. It is Mr. Stephenson's purpose to take it to the Great Exhibition in London in May next."

LIVERPOOL MECHANICS' INSTITUTION.—We are happy to notice, in connection with this institution, the formation of a class for the study of the principles of construction, as applied in engineering, carpentry, masonry, and shipbuilding, and which is to be conducted as a branch of the second evening school, by Mr. W. Gray, B.A. teacher of natural philosophy and chemistry. This department of study has, strange to say, never yet—or, at least, never within our knowledge—been introduced, in a comprehensive manner, into institutions intended, *par excellence*, as their name implies, to promote the education of mechanics; although in it are involved principles which ought to form the groundwork in the practical education of the artificer, and which, indeed, should be understood by every one. The instruction will be given in lectures, illustrated by diagrams and models. The course will extend over eighty or ninety lectures,—on the laws of force, centre of gravity, mechanical powers, deflection of beams and strength of beams, columns, axles, &c.; on roofs, timber, lattice, girder, and suspension, as well as tubular bridges; on the pressure of earth and strength of retaining walls; on foundations and the strength of piers and abutments; on the principles of arches; and on the principles and various adaptations of wheel-work. After the elements of hydrostatics have been elucidated, lectures will be delivered on the pressure upon embankments, floodgates, locks, &c.; on water-wheels; on the principles of flotation and stability; and on shipbuilding. The force of the wind, the laws of heat, and the construction of steam-boilers and of the steam-engine, will be among the other branches of the subject, to the explanation of which Mr. Gray will devote himself.—*Liverpool Times.*

GRAND MAUSOLEUM AT HAMILTON PALACE.—There is at present in course of erection near the ducal palace, at Hamilton, Lanarkshire, a mausoleum which is said to surpass any erection of the kind in Great Britain. The work has been gone about very quietly for nearly three years. The entire height of the building from the ground on the south side to the top of the dome, will be 120 feet. The base, covering an area of 110 feet, is formed by a plinth of 7 feet. After a further ascent of 7 feet, composed of three colossal steps, the main part of the building commences. The basement, which is to be rusticated, is surmounted by a Roman-Doric façade, formed by pilasters, which, including the entablature, is 30 feet high; the portion of the building being all square, and extending 58 feet on the side. Above the façade is a circular building, 40 feet high and 47 feet in diameter, surmounted by a stone dome, rising 15 feet above the last elevation. On the south side, which is the front of the building, there is to be a piazza, 19 feet high, and 86 feet long, terminated by large pedestals, 14 feet long, on the top of which sleeping lions are intended to be placed. The diameter of the interior is 40 feet, having eight recesses with domicile tops. A cornice is carried round, at the height of 40 feet, immediately over which is a range of coupled pilasters, sixteen in number, and 33 feet high, including pedestal and entablature. Between the pilasters are eight niches, which may be afterwards filled with sculpture. From the entablature of this range of pilasters the stone dome springs, which is to be formed of square panels, with deep sinkings. In the centre there is to be an opening, 14 feet in diameter, which it is intended to fill with a single plate of glass. The floor is to be paved with jasper and the finest marbles, in mosaic.

THE TIMBER TRADE.—Messrs. Churchill and Sim's circular states that the quantities imported for the United Kingdom have been nearly the same as in 1849, but less than in 1848 and 1847. In London, however, while the import of deals and battens is 10, 15, and 20 per cent. less than in the three preceding years, the consumption exceeds that of the same years by 10 per cent. on their average, and by nearly 15 per cent. in excess of the present importation. At the same time there appears to be an average import of square timber, with the consumption also 15 per cent. in excess of it, and 28 per cent. above the quantity consumed in 1849. We must, therefore, have consumed those arrears of prior importations which exceed a wholesome supply, and are justified in thinking that the trade, after several years of difficulty, is at length sound and satisfactory. The consumption of wood has increased, and will continue to increase, unrestricted by high prices. Freight and duty combined, the import charges from America or the Baltic are so nearly alike that these great sources of the supply of wood are in direct competition, controlling or tending to equalise the English price. The industry of all nations in active development—full work and cheap food for every one—peace at length in Europe, and a rapidly advancing trade at home—are ample reasons for looking to the increased consumption of every necessary, and ranking second to none, cheap wood.

For a comprehensive guide on PDF Compression and OCR go to ThePaperlessOffice.org